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Communications and Information

RADIO FREQUENCY MANAGEMENT

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This instruction establishes policy and procedures, and defines responsibilities for 50th Space Wing (50 SW) radio frequency management at Schriever Air Force Base (AFB), subordinate organizations and operating locations. It includes, but is not limited to, the functions of frequency procurement, assignments, control, protection, coordination, scheduling, monitoring, and interference reporting. This instruction implements AFD 33-1, Command, Control, Communications, and Computer (C4) Systems; AFI 33-118, Air Force Frequency Spectrum Management; AFMAN 33-120, Radio Frequency Spectrum Management; and AFI 10-707, AFSPC Sup1, Spectrum Interference Resolution Program, and applies to military and non-military activities on Schriever AFB, its subordinate unit locations, and other operating locations. It also applies to electromagnetic receiving systems requiring frequency protection for successful operation.

SUMMARY OF REVISIONS

The revision of this publication is to meet the current 50 SW requirements. No significant content material has changed. Address and phone numbers were updated, and a bullet was added regarding training for unit points of contact (POCs).

1. Air Force Policy. The radio frequency (RF) spectrum is a limited natural resource vital to the support of military operations. The intensive requirements being placed on this resource require effective management at all command levels to ensure radio frequencies can be provided to meet essential mission requirements. AFI 33-118 and AFMAN 33-120 provide information, instructions, and directions for the implementation of a frequency management program to ensure effective and efficient use of those limited radio frequencies. AFI 10-707, AFSPC Sup 1 provides guidance for reporting, identifying, evaluating, and controlling electromagnetic interference (EMI) and directions for the implementation of the Spectrum Interference Resolution Program.

2. Responsibilities:

2.1. The 50 SW Commander. As host, is responsible for all matters dealing with radio frequency use on Schriever AFB, all 50 SW Geographically Separated Units (GSUs), and the coordination of RF operations at bases and operating locations supporting the 50 SW missions.

2.2. The 50 SW Frequency Management Office (850 CS/SCX).

2.2.1. Provides RF management support for all Schriever AFB and GSU activities. Interfaces with frequency managers who host tenant 50 SW units.

2.2.2. Provides guidance and assists users in processing DD Form 1494, Application for Equipment/Frequency Allocation.

2.2.3. Processes frequency proposals for radio frequency assignments.

2.2.4. Provides users a copy of their frequency assignment document (license to operate).

2.2.5. Ensures frequency assignments are reviewed and updated as required by the National Telecommunications and Information Administration (NTIA).

2.2.6. Ensures users are advised of the authorized limitations and tolerances, such as transmitter power, type of antennas, antenna height, etc, applicable to their frequency assignments.

2.2.7. Provides training to unit frequency management point of contact (POC). Training is tailored to meet the needs of each unit as applicable and is available upon request.

2.3. Using Activities. Each organization on Schriever AFB, GSUs, and all 50 SW subordinate units authorized to use one or more frequencies.

2.3.1. Identifies, in writing, to the 50 SW Frequency Management Office, a POC and alternate for frequency matters and ensures this appointment is updated annually or when a change occurs.

2.3.2. Obtains radio frequency guidance from the 50 SW Frequency Management Office prior to making contractual obligations for electromagnetic devices.

2.3.3. Submits radio frequency assignment requirements to the 50 SW Frequency Management Office in accordance with AFI 33-118.

2.3.4. Ensures that a radio frequency assignment is permanently retained for each frequency used (license to operate).

2.3.5. Ensures that equipment radiating RF energy complies with limitations and restrictions noted in the radio frequency assignment.

2.3.6. Takes prompt action to resolve radio frequency interference IAW AFI 10-707, AFSPC Sup 1 and 50 SWI 10-215.

2.3.7. Maintains a database of all applicable frequencies and their 5-year review dates for the unit/GSU. Periodically reviews assigned frequencies and submits requests to delete frequencies no longer needed. Updates needed frequency assignments whenever changes to operating parameters occur. Coordinates 5-year review updates with 50 SW Frequency Management Office a minimum of 180 days prior to the due date found in the Standard Frequency Action Format (SFAF) item 142 or the license to operate. Addresses for 50 SW Frequency Management follows:

Mail: 850 CS/SCX (Attn: Frequency Management)

300 O'Malley Ave, Ste. 73

Schriever AFB CO 80912-3073

E-Mail: <mailto:50swfreqmgt@safb.af.mil>

Message: 850 CS SCHRIEVER AFB CO//SCX//

FAX: DSN 560-6410

Voice: DSN 560-4727/ DSN 560-2665

3. Procedures:

3.1. Frequency Allocation. Any base activity or unit subordinate to the 50 SW planning to procure or develop a new system involving transmission or reception of RF energy, or planning to change the RF characteristics of an existing RF system, must include the frequency manager in the initial planning phase. This ensures new equipment is compatible in the current environments where equipment supporting 50 SW mission is employed, and conforms with Department of Defense (DoD), national, and international regulations and agreements. If the involved equipment has not been approved for use within DoD, the frequency management office will help develop and process a DD Form 1494, Application for Frequency Allocation. Lead-time is 8 to 12 months.

3.2. Frequency Procurement. Any activity requiring a new RF assignment within an allocated band or modifications to an existing one, must contact the 50 SW Frequency Management

Office. The frequency management office will provide assistance in frequency selections to ensure compatibility prior to drafting and processing a formal RF proposal.

3.3. Frequency Assignment. Frequency requirements supporting the 50 SW, its GSUs, and tenants are complex, diverse, always changing, and involve varied commands and agencies that support unrelated programs and tests. All activities operating electromagnetic systems must have a radio frequency assignment issued by the Military Communications-Electronics Board (MCEB) or the 50 SW Frequency Manager. Any command, agency, business, or visiting unit who holds or receives a RF assignment document from their respective DoD frequency management agency, command, or the Federal Communications Commission (FCC) must send a copy of that document to the 50 SW Frequency Manager. This is done to minimize any EMI that could occur if frequencies used are in conflict with each other.

3.4. Frequency Coordination. Any activity anticipating a need for coordination with other assigned agencies concerning RF matters must contact the 50 SW Frequency Manager prior to radiating. The frequency manager provides or performs all such coordination necessary to prevent or resolve frequency problems. Using the frequency manager for internal and external frequency coordination is mandatory and is the only acceptable way of ensuring appropriate technical review, preventing redundant or conflicting positions, and maintaining good relationships and credibility.

3.5. EMI Reporting. Units experiencing EMI shall report the event(s) IAW AFI 10-707, AFSPC Sup 1 and 50 SWI 10-215. These instructions contain procedures for resolving EMI to satellite systems, ground stations and non-satellite systems (e.g., Land Mobile Radio Networks).

3.5.1. Satellite Systems /Non-Satellite Systems. 50 SW bases/GSUs and tenant units shall report all EMI affecting non-satellite systems to the 50 SW/CP in accordance with 50 SWI 10-215.

LARRY D. JAMES, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****Terms***

Electromagnetic Equipment—Electronic systems, equipment, and devices capable of radiating RF energy or are dependent on the reception of RF energy to successfully perform their function.

Electromagnetic Interference (EMI)—Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of electronics/electrical equipment.

Frequency Allocation—Entry in the table of Frequency Allocations of a given frequency band for its use by one or more (terrestrial or space) radio communications services or the radio astronomy service under specified conditions (the area of frequency spectrum a frequency assignment is authorized to radiate an RFD device in, not a “license” to operate – see Frequency Assignment).

Frequency Assignment—Designation of specific frequency, group of frequencies, or frequency band at a specific location and under specified conditions (“the license”).

Frequency Management Office—Office designated by the 50 SW Commander that exercises frequency management for, and in conjunction with, all units on Schriever AFB, other 50 SW subordinate units, and GSUs.

Frequency Procurement—Obtaining a RF assignment from higher headquarters to operate a RF device (usually a transmitter).

Radio Frequency (RF)—Includes the electromagnetic spectrum from 3 Khz to 300 Ghz.